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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,208	03/26/2002	Marcus Benthin	1933	2996
7590 06/13/2005				
Striker Striker & Stenby 103 East Neck Road Huntington, NY 11743				
			EXAMINER	
			GHULAMALI, QUTBUDDIN	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/089,208

Applicant(s)

BENTHIN, MARCUS

Examiner

Qutub Ghulamali

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4 and 5 is/are rejected.
- 7) ☒ Claim(s) 2 and 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/26/02.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

1. Claims 2 and 3 are objected to because of the following informalities:
2. Regarding claim 2, claim 2 recites an equation with various symbols such as hierarchical sequence  $h$  (underscore) show no relation to the error sequence  $h(k)$ .
3. Claim 3 must describe each and every symbol related to the equation in a clear and concise manner. Additionally, a fresh copy of the claim 3 must be submitted to the office as the scanned version of this claim is not clearly discernible in the present form.

Appropriate corrections are required.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claim 1 is rejected under 35 U.S.C. 102(a) as being anticipated by Shiraishi et al (USP 6625239).

Regarding claim 1, Shiraishi discloses a method for correlating discrete-time signal segments, wherein a predetermined signal section in a signal is determined by means of the correlation, in particular for a signal transmission system, wherein the system having the known

signal segment is sent from a transmitter to a receiver, and the position of the known signal segment in the signal is determined in the receiver by means of the correlation between the received signal and the known signal segment (col. 1, lines 7-19; col. 13, lines 15-24), wherein the known signal segment is stored as errored hierarchical sequence that is the sum of a hierarchical sequence and an error sequence, and the correlation is formed as sum of a correlation between the received signal and the stored hierarchical sequence and a correlation between the signal and the stored error sequence (col. 12, lines 50-67; col. 13, lines 24).

Regarding claim 4, Shiraishi discloses sum of a hierarchical sequence and an error sequence is carried out such that the error sequence contains as few elements as possible that are different from zero (error of 1 bit or 2 bits) (col. 15, lines 26-31).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi et al (USP 6625239) in view of Kubler et al (USP 5726984).

Regarding claim 5, Shiraishi discloses all of the claimed limitations except use in a mobile telephone system. Kubler in a similar field of endeavor discloses a hierarchical data communication network system employed in an overall scheme to link portable or mobile

computing devices (telephone) (see abstract). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the system for mobile telephones as taught by Kubler in the system of Shiraishi because it can provide efficient hierarchical communication network for both data and voice.

*Allowable Subject Matter*

8. Claims 2 and 3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim including the claim objections cited herein this office action and any intervening claims.

*Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**US Patents:**

Propp et al (USP 5727004) discloses a method and apparatus for data encoding in a hierarchical communication system.

Pickett et al (USP 6498791) shows a system and method for multiple voice data communication.

Feng (USP 5592227) discloses a method and an apparatus for compressing a digital signal using vector quantization.

**US Publication:**

Matsuoka, H et al, "Adaptive modulation system with variable coding rate concatenated code for high quality multi-media communication systems", Vehicular Technology Conference, 1996, IEEE 46<sup>th</sup> Volume 1, 28 April-1 May 1996 Page(s):487 – 491.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qutub Ghulamali whose telephone number is (571) 272-3014. The examiner can normally be reached on Monday-Friday from 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

QG.  
June 9, 2005.



JAY K. PATEL  
SUPERVISORY PATENT EXAMINER